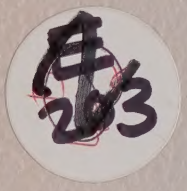
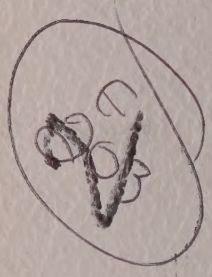
5-B-59

FEC

PRICE $5.00

POWER SUPPLY





INSTRUCTION MANUAL

KEPCO INC.

131-38 SANFORD AVENUE • FLUSHING, N. Y. 11352
Area Code 212 IN 1-7000 • TWX # 212-539-6623

SERIES CONNECTION

Kepco Voltage Regulated Power Supplies can be connected in series for increased voltage, provided the specified limits on the voltage to chassis are not exceeded. When series connected, supplies should be protected by means of a semiconductor diode, reverse-connected across the output terminals of each power supply. The peak reverse voltage (PRV) rating of this diode should be chosen to be at least as large as the voltage rating of the supply to which it is connected. The forward (continuous) current rating of the diode should be capable of carrying the largest short circuit current of the series inter-connected supplies.

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INSTRUCTION MANUAL

VOLTAGE REGULATED POWER SUPPLY

MODEL SM 75-2
and SM 75-2M

SERIAL NO. .....

STANDARD POLICY COVERING REPRODUCTION AND USE OF TECHNICAL DATA FOR KEPCO MANUFACTURED EQUIPMENT

The technical data submitted, including manuals, parts information, and mechanical and electrical drawings, is furnished solely for the purpose of effecting maintenance and/or repairs to the apparatus therein described and the purchaser or the Government shall not reproduce, use, or disclose the said technical data, in whole or in part, for any other purpose. Such technical data shall not be used for promotional procurement, development or manufacturing purposes, nor shall the purchaser or the Government permit the reproduction, use, or disclosure of any part of said technical data by others. The purchaser shall notify the Government of the purchaser's limited right in the use of said technical data for aforesaid purposes. In the event that any part of this technical data is used by anyone for other than the above authorized purposes, the purchaser will give all assistance possible for the prosecution of action against any unauthorized use thereof.

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Parts Lists
Schematic Diagrams
Dimensional Diagram

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A. SPECIFICATIONS AND DESCRIPTION

A-1 ELECTRICAL AND PHYSICAL SPECIFICATIONS

OUTPUT VOLTAGE: 0-75 volts DC, continuously variable.

OUTPUT CURRENT: 0-2 amperes, continuous duty.

AC INPUT: 105-125 volts, 60 cps ± 1 cps, single phase; 4 amperes. (Unit will operate within regulation specifications for line frequency changes of 57-63 cps).

LINE REGULATION: Less than 0.01% for 105-125 volts AC line change, at any output voltage within the specified range.

LOAD REGULATION: Less than 0.01 or 0.001 volt, whichever is greater, for 0-2 ampere load change, at any output voltage within the specified range.

RIPPLE: Less than 0.001 volt rms.

OUTPUT IMPEDANCE: Less than 0.004 ohm from DC to 100 cps. Less than 0.005 ohm from 100 cps to 1 KC. Less than 0.04 ohm + 0.4 μh from 1 KC to 100 KC.

RECOVERY TIME: 50 microseconds.

STABILITY: Output voltage variation is less than 0.01% or 0.002 volt, whichever is greater, over a period of 8 hours after unit has reached equilibrium. Approximately 3/4 of an hour is required for this unit to reach equilibrium from a "cold" start.

AMBIENT OPERATING TEMPERATURE: -20°C to +50°C maximum. Protective circuit turns off unit whenever over-temperature condition occurs in pass elements. Interrupting input power resets unit.

TEMPERATURE COEFFICIENT: Less than 0.01% per degree C.

STORAGE TEMPERATURE: -40°C to +85°C.

DIMENSIONS: Height 3 1/2"; Width 19"; Depth 13 7/8" behind panel.

COLOR: Kepco Standard Gray Hammertone.

METERS: (Furnished on units with suffix "M" following Model No.) Voltmeter: 0-80 volts, 2 1/2"; Ammeter: 0-2 amperes, 2 1/2".

A-2 TERMINALS AND CONTROLS -

- ON FRONT PANEL.

.... POWER ON-OFF SWITCH, with Pilot Light, for AC Input.

.... VOLTAGE CONTROL, adjusts the output voltage over the range 0-75 v.

.... DC OUTPUT and GROUND binding posts, clearly marked. Output terminals isolated from chassis; either positive or negative terminal may be grounded.

- AT REAR OF UNIT.

.... DC OUTPUT and GROUND binding posts, clearly marked; connected internally to respective front panel binding posts.

.... REMOTE ERROR SENSING binding posts provide means of connecting output to maintain specified regulation directly at remote load terminals.

A-3 PROTECTIVE FEATURES -

.... POWER INPUT FUSE (ac) on front panel.

.... DC OUTPUT FUSE on front panel.

.... REFERENCE FUSE (ac) for internal circuitry.

.... OVERLOAD PROTECTION:
Inherent current limiting action of Kepco "FLUX-O-TRAN" transformer permits momentary short circuit of output without damage to unit. Continuous overload or short circuit will open the DC OUTPUT FUSE.

.... OVERTEMPERATURE PROTECTION:
Thermostat relay control turns unit OFF if temperature of PASS elements exceeds safe limit. Relay is reset by interrupting input power with ON-OFF switch on front panel, or by disconnecting line cord.

SECTION B

BRIEF THEORY:

Two circuit schematic drawings titled "POWER UNIT" and "CONTROL UNIT" are included in the Reference Index of this instruction manual. These drawings contain designations corresponding to the capitalized terms in the following discussion.

Some basic functional relationships in this power supply are illustrated in block Diagram B-1 (Page B-2A).

The POWER UNIT includes:

DC SOURCES:

....MAIN SUPPLY - (consisting of a Kepco "Flux-O-Tran" transformer, full wave bridge rectifier, and capacitive filter) provides line regulated DC power for the output, via the PASS CIRCUITRY.

....AUXILIARY SUPPLIES: COLLECTOR SUPPLY (negative full wave rectified) for PASS CIRCUITRY driver stages not connected to MAIN SUPPLY; I_{CO} SUPPLY (full wave rectified) compensates for spurious biasing effects of collector leakage current; RETURN SUPPLY (full wave rectified) acts as leakage current path for series pass transistors and as bleed path to provide minimum operating current for pass transistors; CONTROL UNIT SUPPLY (full wave rectified).

PASS CIRCUITRY:

The power transistors which function as pass elements (i.e. are in series with the load) may be regarded effectively as variable resistors (or conductors) controlled by a CONTROL SIGNAL. The current "passed" by these elements is a function of the emitter-base bias. The CONTROL SIGNAL is applied to the base terminal; hence a negative CONTROL SIGNAL will aid the forward conduction of a PNP transistor while a positive CONTROL SIGNAL will reduce the forward conduction. In response to the CONTROL SIGNAL the pass elements effect a current and voltage distribution in the main DC loop which holds the output voltage constant.

The CONTROL UNIT includes:

REFERENCE CIRCUITRY:

The function of the REFERENCE CIRCUITRY is to maintain a precise, stable, voltage standard for the COMPARISON AMPLIFIER.

COMPARISON AMPLIFIER:

The COMPARISON AMPLIFIER is essentially a series of cascaded transistor amplifiers which boost the differential error signal produced in the COMPARISON BRIDGE to a level sufficient to drive the PASS CIRCUITRY. The COMPARISON AMPLIFIER is connected across the COMPARISON BRIDGE from the junction of the VOLTAGE CONTROL and the REFERENCE RESISTANCE to the junction of the REFERENCE DIODE and the negative output terminal (See Diagram on Page B-2A). This arrangement is similar to that of a null galvanometer across a Wheatstone bridge. Unbalance in the COMPARISON BRIDGE is amplified to produce a CONTROL SIGNAL of suitable magnitude and phase to effect corrective action by the PASS CIRCUITRY.

COMPARISON BRIDGE: (See Diagram B-2, Page B-2A).

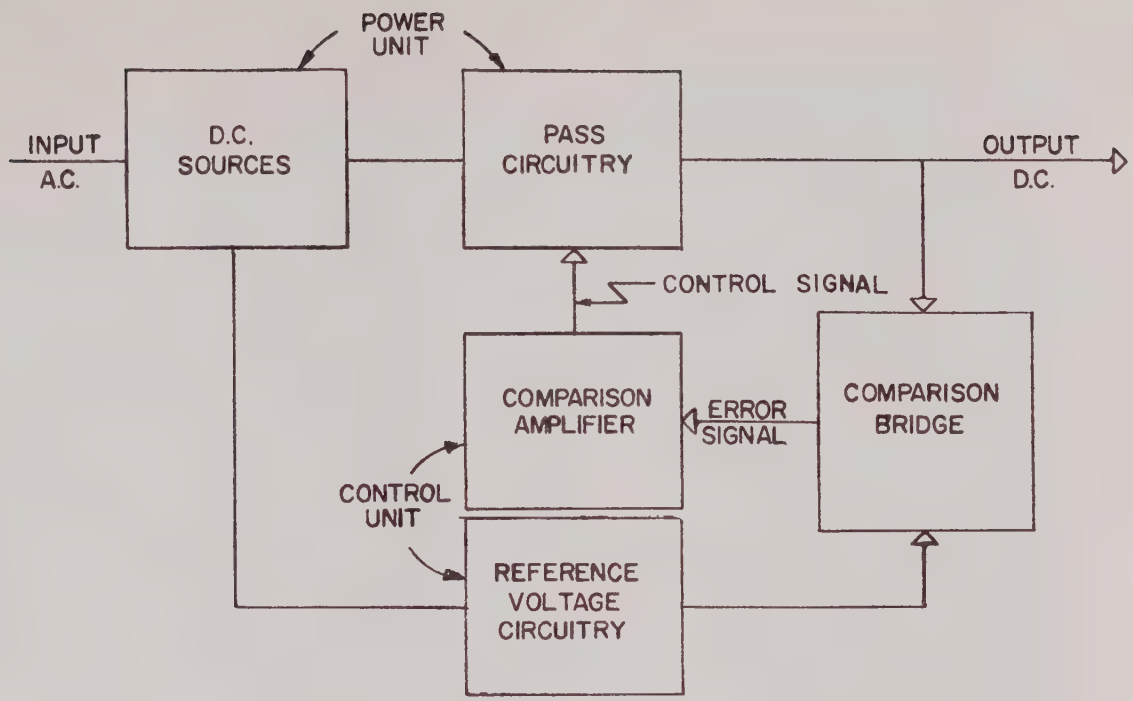
This bridge circuit implements the comparison between the OUTPUT VOLTAGE and the REFERENCE VOLTAGE. The signal produced by the comparison drives the COMPARISON AMPLIFIER.

Balance occurs in the Comparison Bridge when the following ratios are equal:

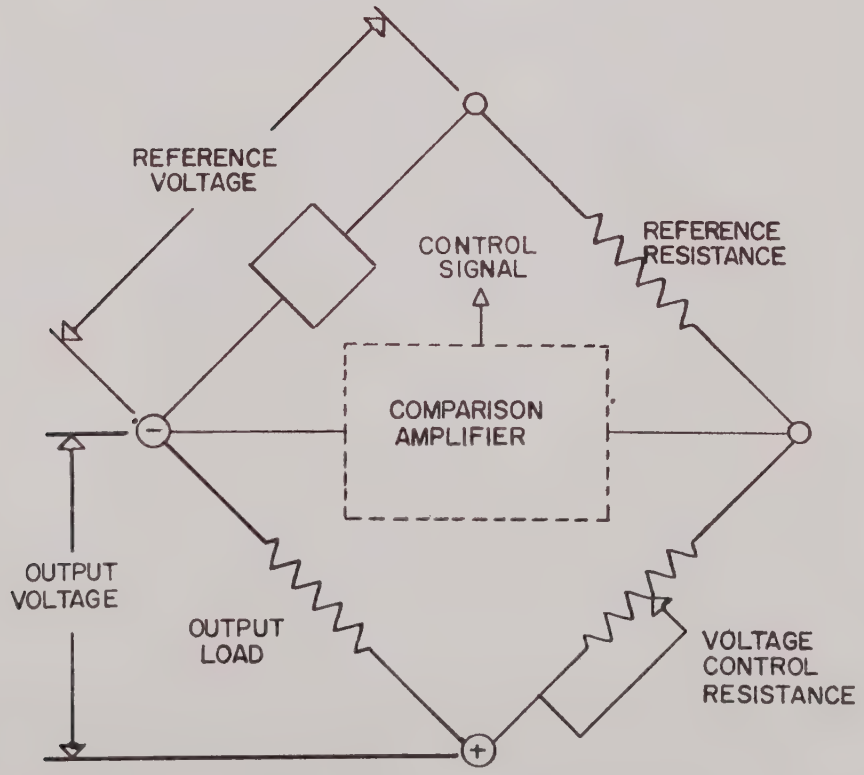
$$\frac{\text{Output Voltage}}{\text{Voltage Control Resistance}} = \frac{\text{Reference Voltage}}{\text{Reference Resistance}}$$

When, for example, the Comparison Bridge is unbalance by a decreasing output voltage drop across the load, it gives rise to a negative signal at the base of the COMPARISON FOLLOWER in the COMPARISON AMPLIFIER circuit. This signal is amplified in cascade and communicated to the pass elements as a negative base input aiding their forward conduction and consequently increasing the output voltage.

A bridge unbalance caused by an increasing output voltage produces, of course, a chain of oppositely biased circuit responses which reduce the voltage across the load.



(DIAGRAM B-1) *VOLTAGE REGULATED POWER SUPPLY*



(DIAGRAM B-2) *COMPARISON BRIDGE*

This power supply is shipped without any internal packing material; and may be put into operation immediately. It is designed for rack and for bench use. Carrying handles are provided on front panel.

....INTIAL "TURN - ON" PROCEDURE:

1. Adjust VOLTAGE CONTROL to approximate mid-range position.
2. With POWER ON-OFF switch set in "OFF" position, connect line cord to 115 v ac, 60 cps input power. If outlet is not polarized use 3 to 2 - prong adapter supplied with unit.
3. Set POWER ON-OFF switch to "ON" position.
4. Adjust VOLTAGE CONTROL to obtain desired output voltage.

....GENERAL OPERATION:

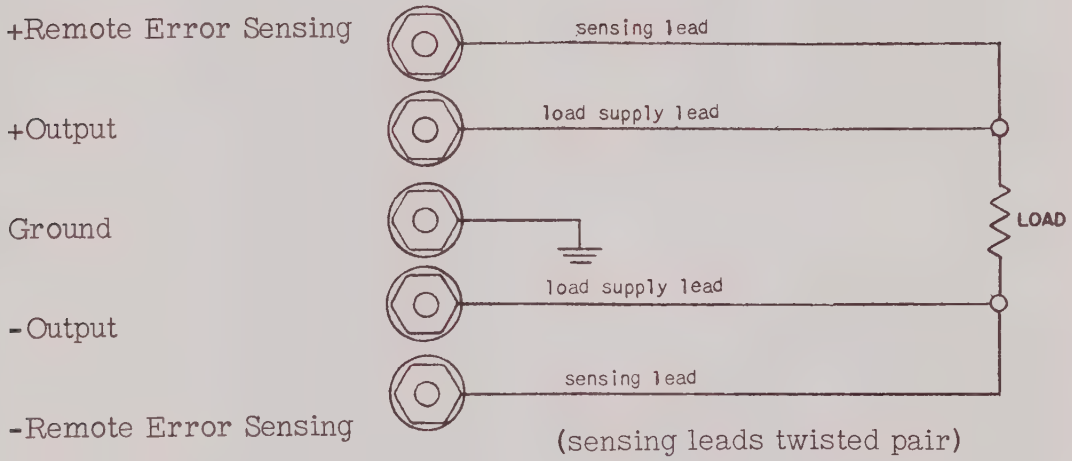
1. Once it has been determined that the unit is functioning satisfactorily, it is subsequently unnecessary to follow the INITIAL TURN-ON PROCEDURE.
2. The VOLTAGE CONTROL may be left fixed at any setting and the power turned "ON" and "OFF" without any harmful effects.

....MAINTENANCE AND REPAIR:

1. Under normal operating conditions, no mechanical maintenance of any kind should be required. Conservatively rated electrical components assure long trouble-free operating life.
2. Exceptional component accessibility, provided by resistor board construction and plug-in sub-assemblies, facilitates servicing, should it be required. It is emphatically recommended that trouble-shooting be handled by personnel highly familiar with transistor circuitry, - preferably with experience in closed-loop designs.
3. This unit should not be returned to the manufacturer without proper authorization and shipping instructions. In any correspondence with the factory regarding repair, the model, serial number, and symptoms of malfunction must be included.

REMOTE ERROR SENSING OPERATION

(Terminal Connections)



(sensing leads twisted pair)

(Procedure)

1. With AC input power disconnected, remove jumpers between plus and minus Output terminals and Remote Error Sensing terminals on the rear of the unit.

2. Using twisted pair wire, connect sensing leads from positive and negative Remote Error Sensing terminals to the load (observing polarities).

3. Using twisted pair wire, connect load supply leads from positive and negative Output terminals.

IMPORTANT NOTE: This unit should not be operated with Remote Error Sensing if the voltage drop across the load supply leads exceeds 0.5 volt (maximum) per lead at maximum rated output current.

kepco inc. ® REPLACEMENT PARTS LIST

POWER SUPPLY MODEL SM 75-2,-2M,-2MX Code 10-864

SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
B201	1	Motor Fan	Barber-Colman KYAF764-1	148-0006
C201	1	Capacitor, Electrolytic, Can 2250 µf, 110 v	Sangamo DCM	117-0285
C202	1	Capacitor, Electrolytic, Can 4 K µf, 110 v	Sangamo DCM	117-0286
C203	1	Capacitor, Electrolytic, Can 2 µf, 660 v	General Electric 49F2322	117-0169
C204	1	Capacitor, Mylar 1 µf, 200 v	Hopkins Eng. 1P2MK	117-0207
C301	1	Capacitor, Ceramic 0.1 µf, 500 v	Sprague Electric 41 C92	117-0087
C302	1	Capacitor, Ceramic 0.03 µf, 200 v, 20% (Models Without X Version)	Sprague Electric 192P3392	117-0291
C302	1	Capacitor, Mylar, Pigtail 0.2 µf, 200 v, 10% (Models With X Version Only)	Hopkins Eng. T22MK	117-0236
C303	1	Capacitor, Electrolytic, Pigtail 50 µf, 150 v	Industrial Cond. 10B936	117-0127
C304	1	Capacitor, Electrolytic, Pigtail 10 µf, 150 v	Industrial Cond. 10B912RM	117-0147
C401	1	Capacitor, Electrolytic, Pigtail 350 µf, 50 v	Industrial Cond. 1B844	117-0114
C402	1	Capacitor, Electrolytic, Pigtail 100 µf, 200 v	Industrial Cond. 20B317RM	117-0222
C403,404	2	Capacitor, Electrolytic, Pigtail 500 µf, 50 v	Industrial Cond. 1B1163RM	117-0221
C405,406	2	Capacitor, Ceramic 0.05 µf, 500 v, 20%	Sprague Electric 36C142A1	117-0163
CR301	1	Rectifier, Silicon, Pigtail	Automatic PT-5	124-0028
CR401,402	2	Rectifier, Silicon, Pigtail	Electronic Devices	124-0133
CR403,404	2	Rectifier, Silicon, Pigtail	Automatic PT-5	124-0028
CR405-408	4	Rectifier, Silicon, Pigtail	Electronic Devices	124-0133
F101	1	Fuse, Instantaneous 4 a, 250 v	Bussman MTH-4	141-0003
F102	1	Fuse, Slow Blow 4 a, 125 v	Bussman MDX-4	141-0035

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SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
F401	1	Fuse, Instantaneous 2 a, 250 v	Bussman AGC-2	141-0012
*M101	1	Meter 0-80 v, DC, 2 1/2"	General Electric 8DW91V231AS2	135-0189
*M102	1	Meter 0-2 a, DC, 2 1/2"	General Electric 8DW91A225BR2	135-0154
PL101	1	Pilot Light, Neon	General Electric NE-51	153-0024
Q301,302	2	Transistor, Silicon, PNP	Hughes	**119-0055
R101	1	Resistor, Variable, WW 10 K ohm, 1.6 w	General Radio 971-N	115-0268
R201,203	2	Resistor, Fixed, Power, Ribbon 1 ohm, 40 w, 5%	Hardwick Hindle 2BR35-1 ohm	115-1030
R202	1	Resistor, Fixed, Power, Strip 1.5 K ohm, 30 w, 5%	Ward Leonard 30S1500	115-0981
R204	1	Resistor, Fixed, Power, Axial 2.5 K ohm, 10 w, 5%	Ward Leonard 10X2500	115-0318
R205	1	Resistor, Fixed, Power, Axial 50 ohm, 20 w, 5%	Ward Leonard 20S50	115-0777
R206	1	Resistor, Fixed, Power, Axial 2.5 K ohm, 5 w, 5%	Ward Leonard 5X2500	115-0310
R207	1	Resistor, Fixed, Molded 47 ohm, 1/2 w, 10%	Allen Bradley EB4701	115-0718
R301	1	Resistor, Fixed, Molded 5.6 K ohm, 1/2 w, 5%	Allen Bradley EB5625	115-0559
R302	1	Resistor, Fixed, Molded 1 K ohm, 1 w, 5%	Allen Bradley GB1025	115-0960
R303	1	Resistor, Fixed, Power, Axial 400 ohm, 3 w, 5%	Ward Leonard 3X400	115-0564
R304	1	Resistor, Fixed, Molded 100 ohm, 1/2 w, 5%	Allen Bradley EB1015	115-0341
R305,310	2	Resistor, Fixed, Axial 50 ohm, 3 w, 5%	Ward Leonard 3X50	115-0641
R306	1	Resistor, Fixed, Molded 150 K ohm, 1/2 w, 5%	Allen Bradley EB1545	115-0243

*Metered Models Only

**See Field Replacement Page

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SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
R307	1	Resistor, Fixed, Molded 390 ohm, 1/2 w, 5%	Allen Bradley EB3915	115-0883
R308	1	Resistor, Fixed, Power, Axial 15 ohm, 5 w, 5%	Ward Leonard 5X15	115-1012
R309	1	Resistor, Fixed, Molded 47 ohm, 1 w, 5%	Allen Bradley GB4705	115-0999
R311	1	Resistor, Fixed, Molded 330 K ohm, 1/2 w, 5%	Allen Bradley EB3345	115-0250
R312	1	Resistor, Fixed, Power, Axial 1 K ohm, 5 w, 5%	Ward Leonard 5X1000	115-0512
R313	1	Resistor, Fixed, Molded 10 ohm, 1/2 w, 10%	Allen Bradley EB1001	115-0502
R320	1	Resistor, Fixed, Axial 2.5 K ohm, 3 w, 5%	Ward Leonard 3X2500	115-0469
S101	1	Switch, Toggle, SPST 15 a, 125 v	Carling Electric AA252-63XKEP2	127-0107
T101	1	Transformer, Variable 0-75 v, 3 a	Ohmite Mfg. VT2	175-0403
T201	1	Transformer, Flux-O-Tran	Kepco Magnetics 100-1205A	100-1205A
T401	1	Transformer	Kepco Magnetics 100-1179B	100-1179B
A901	1	Rectifier Assembly DB-6F20K	Kepco Inc.	109-0021
		Includes the following:		
	4	Rectifier, Silicon, Stud Type	International Rect. 6F20K	124-0086
A902	1	Pass Assembly E02TC/SP67	Kepco Inc.	110-0153
		Includes the following:		
	1	Resistor, Fixed, Power, Axial 0.2 ohm, 3 w	Ward Leonard 7/16"-Q-0.2	115-0450
	1	Transistor, PNP	Motorola	**119-0036
	1	Switch, Thermostat NC	Chatham DRSCORP73C	127-0093

**See Field Replacement Page

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SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
A903	1	Pass Assembly EO.2/SP67A/1N1369	Kepco Inc.	110-0154
		Includes the following:		
	1	Zener Diode	Hoffman 1N1319	121-0020
	1	Resistor, Fixed, Power, Axial 0.2 ohm, 3 w	Ward Leonard 7/16"-Q-0.2	115-0450
	1	Transistor, PNP	Motorola	**119-0036
A904	1	Driver Assembly FO/441-10	Kepco Inc.	110-0128
		Includes the following:		
	1	Transistor, PNP	Delco	**119-0016

**See Field Replacement Page

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kepco inc. ® REPLACEMENT PARTS LIST

PRINTED CIRCUIT BOARD ASSEMBLY PCB #1 ALL SM-X-MX Code 10-164

SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
C1	1	Capacitor, Electrolytic, Pigtail 10 µf, 50 v	Industrial Cond. 1B1280	117-0136
C2	1	Capacitor, Mylar, Pigtail 2 µf, 200 v, 10%	Hopkins Eng. 2P2MK	117-0129
CR1, 2	2	Rectifier, Silicon, Pigtail	Electronic Devices	124-0178
Q1-6 8, 10	8	Transistor, Silicon, PNP	Hughes	**119-0055
Q7, 9	2	Transistor, Silicon, NPN	General Electric	**119-0054
R1, 5	2	Resistor, Fixed, Molded 3.3 K ohm, 1/2 w, 5%	Allen Bradley EB3325	115-0452
R2	1	Resistor, Fixed, Molded 2.7 K ohm, 1/2 w, 10%	Allen Bradley EB2721	115-0560
R3, 4	2	Resistor, Fixed, Precision 500 ohm, 1 w, 1%	Tepro Electric TS1W	115-1192
R6, 7	2	Resistor, Fixed, Precision 6.6 K ohm, 3 w, 1%	Tepro Electric TS3W	115-0952
R8	1	Resistor, Fixed, Power, Axial 15 K ohm, 1 w, 3%	Tepro Electric TS1W	115-1414
R9, 17	2	Resistor, Fixed, Precision 10 K ohm, 1 w, 1%	Tepro Electric TS1W	115-1232
R10, 14	2	Resistor, Fixed, Power, Axial 2.5 K ohm, 3 w, 5%	Ward Leonard 3X2500	115-0469
R11	1	Resistor, Fixed, Precision 400 ohm, 1 w, 1%	Tepro Electric TS1W	115-1191
R13	1	Resistor, Fixed, Power, Axial 500 ohm, 3 w, 5%	Ward Leonard 3X500 LTC	115-0938
R16	1	Resistor, Fixed, Fused, Oxide 150 K ohm, 1/2 w, 5%	Corning Glass C20	115-1483
R18	1	Resistor, Fixed, Precision, 300 ohm, 3 w, 5%	Ward Leonard 3X300	115-0444
R19	1	Resistor, Fixed, Power, Axial 250 ohm, 3 w, 5%	Hardwick Hindle 9/16 GA-250-LTC	115-0961
R20, 24	2	Resistor, Fixed, Power, Axial 10 ohm, 3 w, 5%	Hardwick Hindle 9/16 GA-10-LTC	115-1160
R21	1	Resistor, Fixed, Molded 100 ohm, 1 w, 5%	Allen Bradley GB1015	115-0902
R22	1	Resistor, Variable, Multiturn 200 ohm, 0.25 w, 10%	Bourns 3067S-1-201	115-0863
R25	1	Resistor, Fixed, Molded 10 ohm, 1/2 w, 5%	Allen Bradley EB1005	115-0818
RD1	1	Zener Diode	International Rect. IN821	121-0041

**See Field Replacement Page.

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SCHEMATIC NO.	QTY.	DESCRIPTION	MFRS. NAME & PART NO. (See Note)	KEPCO PART NO.
C3	1	Capacitor,Mylar,Pigtail 0.5 µf, 200 v, 10%	Hopkins Eng. P52MK	117-0123
R12	1	Resistor,Fixed,Precision,WW 700 ohm, 1 w, 1%	Tepro Electric TS1W	115-1194
R15	1	Resistor,Fixed,Molded 1 K ohm, 1/2 w, 5%	Allen Bradley EB1025	115-0340

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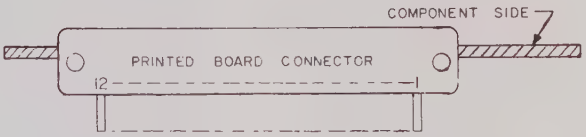
FIELD REPLACEMENT LIST

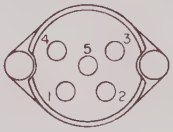
Kepco Part No.	Description	Recommended Replacement MFR.	MFR. No.
119-0016	Transistor, PNP	Delco	2N174
119-0020	Transistor, PNP	RCA	2N398A
119-0022	Transistor, PNP	Tung Sol Texas Instrument	2N1707 2N404
119-0024	Transistor, NPN	General Inst. RCA, General Elec. Texas Instrument Sylvania, Texas Instrument	2N1605 2N388 2N1308
119-0034	Transistor, PNP	Delco Hughes	2N1172 2N1131A
119-0035, 0036, 0037	Transistor, PNP	Motorola Clevite	2N1167 CTP 3553
119-0038	Transistor, NPN	Transitron	ST29
119-0048	Transistor, Unijunction	General Electric	2N1671A
119-0049	Transistor, PNP	Delco	2N669
119-0054	Transistor, NPN	General Electric	2N338 2N336A
119-0055	Transistor, PNP	Hughes	2N1131A
119-0056	Transistor, NPN	General Electric	2N336A
119-0057	Transistor, PNP	Delco	DTG-1200
119-0059	Transistor, NPN	RCA	2N3053
119-0060	Transistor, NPN	RCA	2N3054
119-0061	Transistor, NPN	RCA	2N3055
119-0065	Transistor, PNP	Hughes	2N3225
119-0067	Transistor, PNP	Delco	DTG-2400
119-0068	Transistor, NPN	RCA	40250
119-0069	Transistor, NPN	RCA	40251
119-0070	Transistor, NPN	RCA	2N3442

PCB-1 V/I CONTROL BOARD

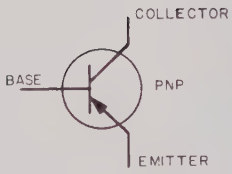
PCB-2 SCR CONTROL BOARD

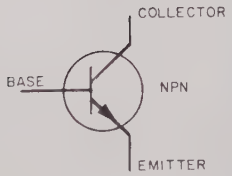


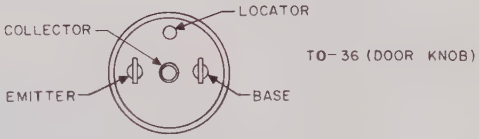
PLUG IN DRIVER AND PASS ASSEMBLIES - CHASSIS SOCKET VIEW

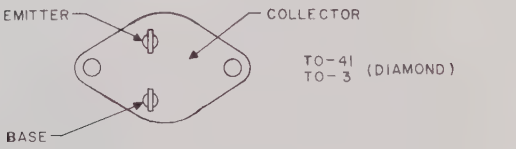


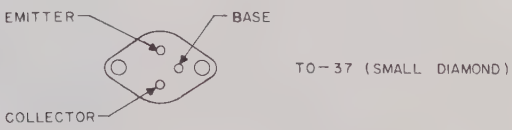
TRANSISTORS

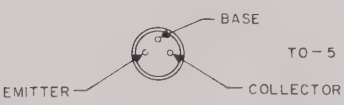




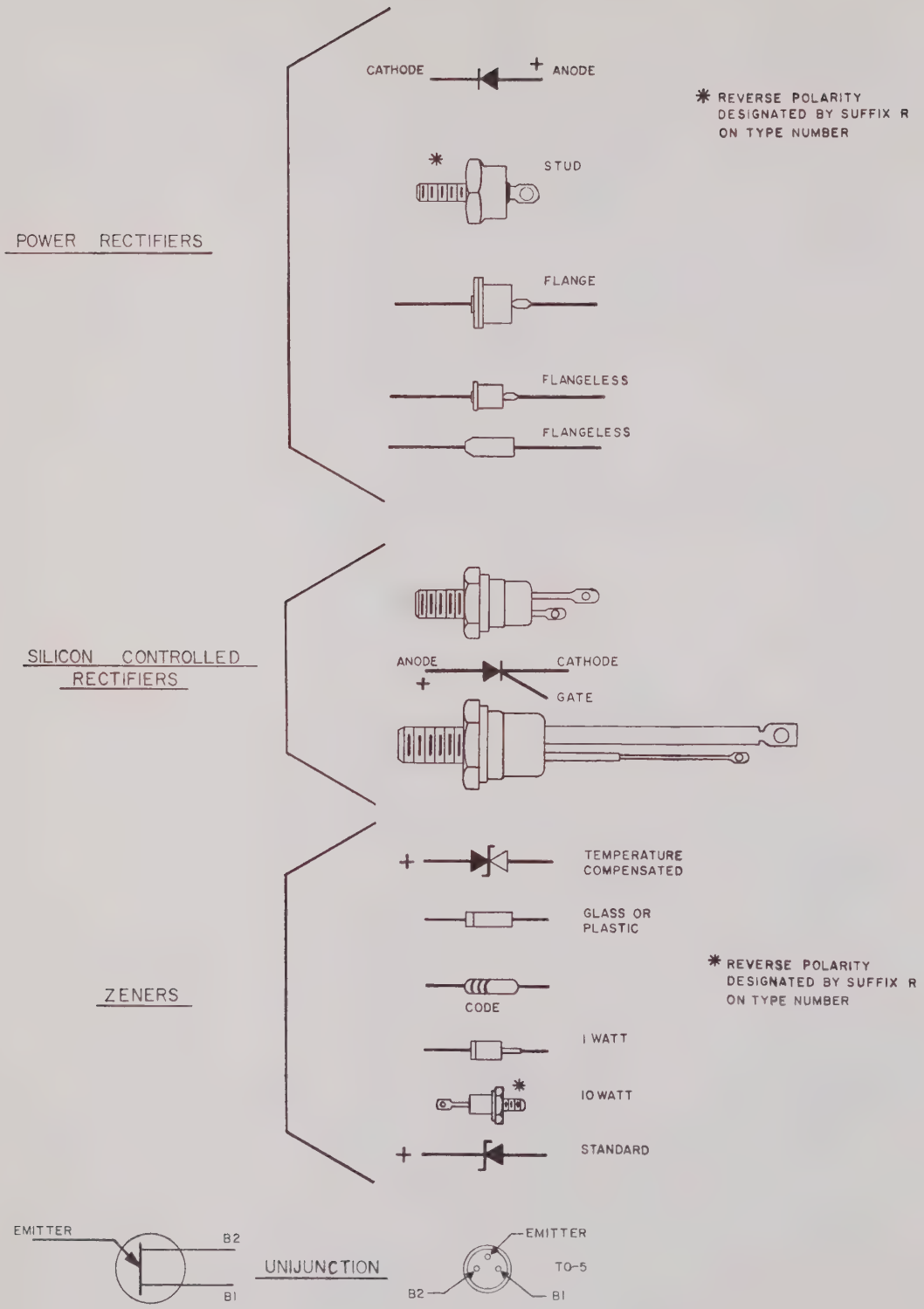




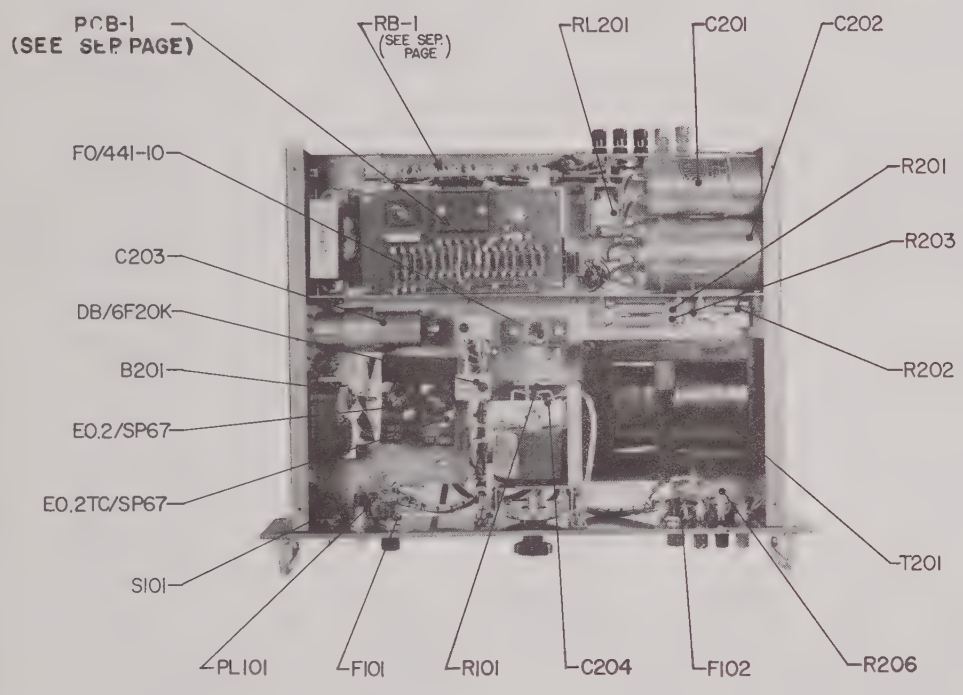


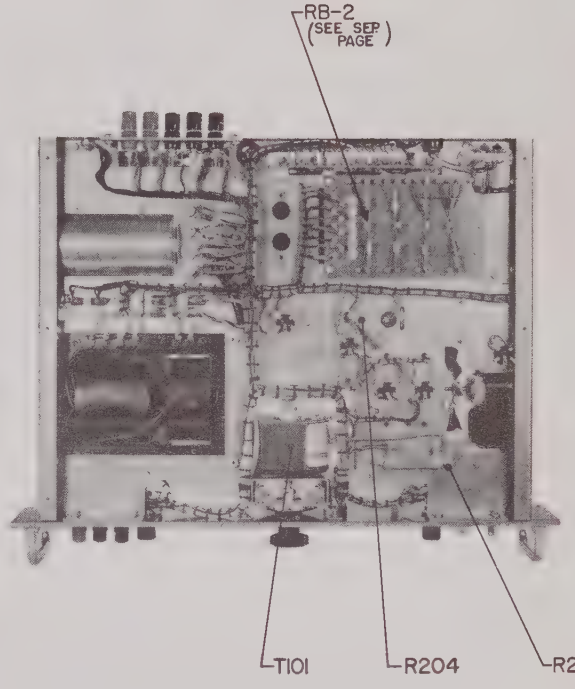


TERMINAL DESIGNATIONS OF CONNECTORS AND COMPONENTS



TERMINAL DESIGNATIONS OF CONNECTORS AND COMPONENTS

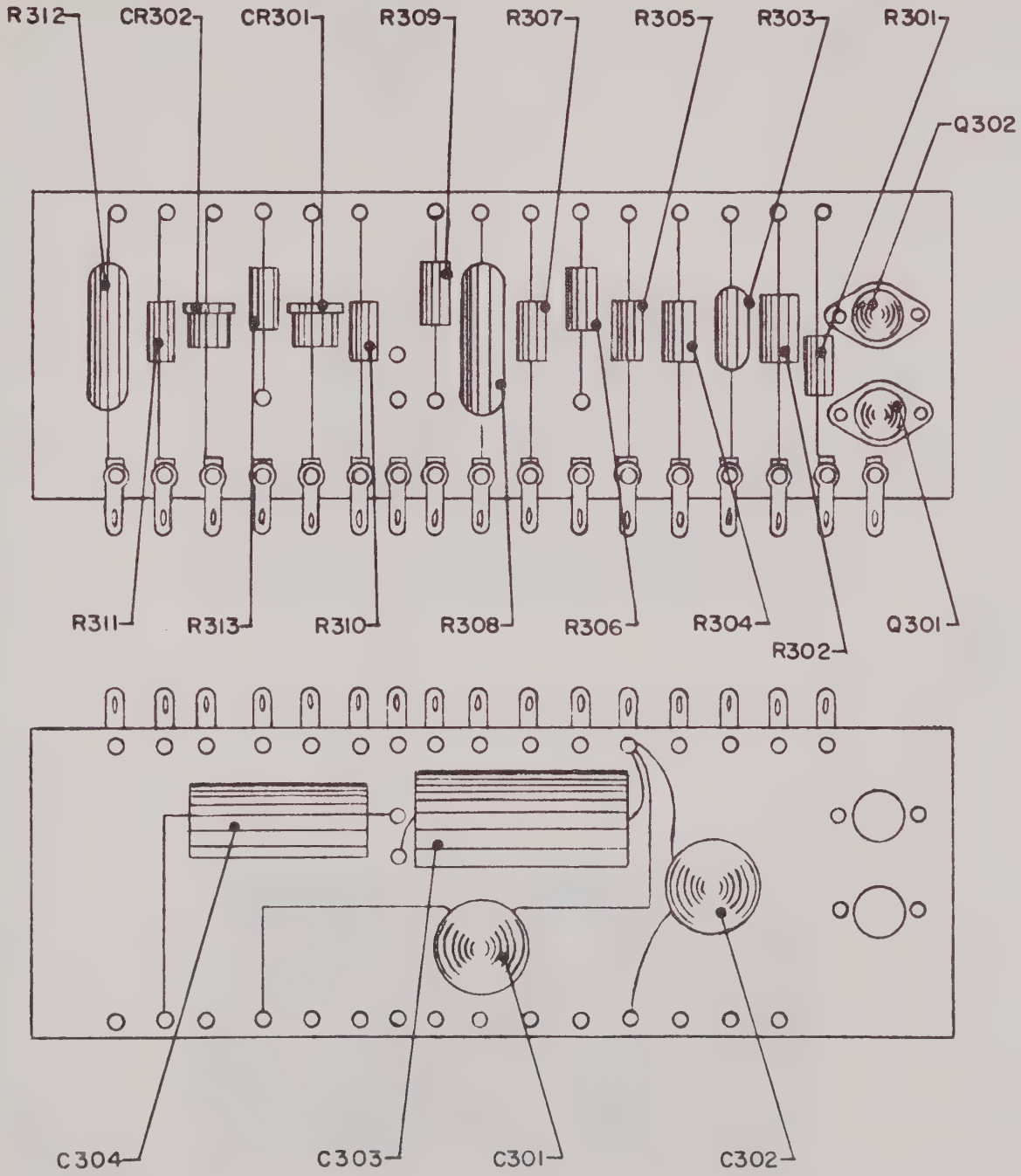




KEPCO LABORATORIES
FLUSHING NEW YORK

ITEM POWER UNIT	DES 9-1-64
	APPD JPR.
MODEL SM-75-2	DFTM R.C
DWG No CM01348	CHKD TRI

A

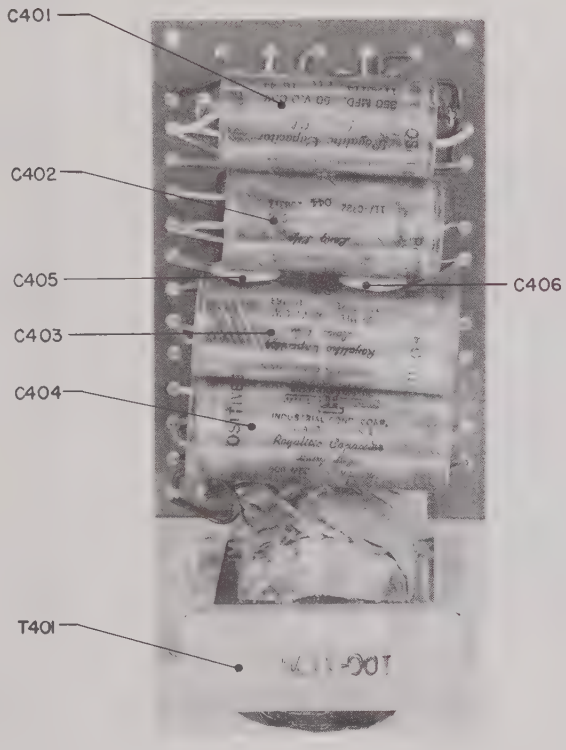


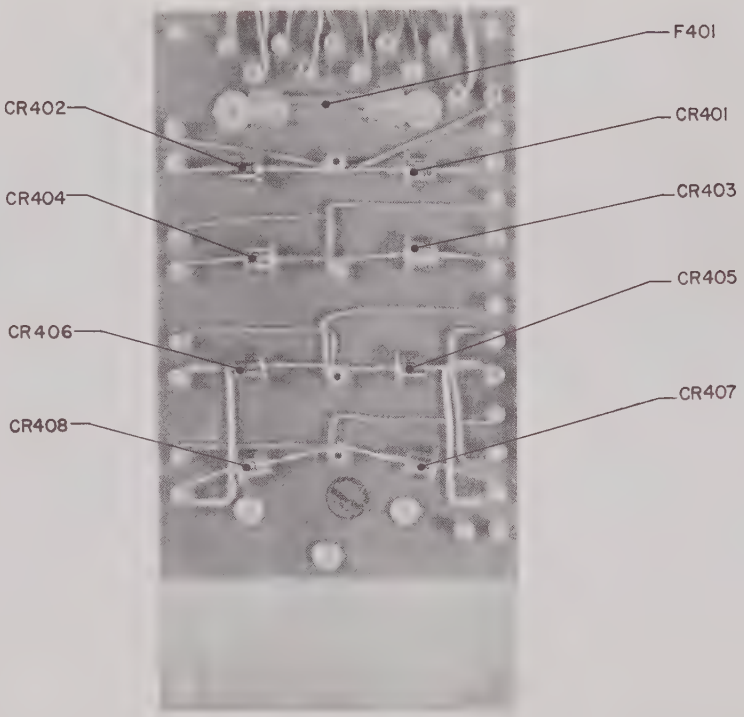
TOLERANCE UNLESS OTHERWISE SPECIFIED: FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± 1/2°

DRAWN	CHECKED	APPROVED	DATE
R C	T Del		4-28-61
MODEL NO.		PART NO	SCALE
SM-75-2			
TITLE	RB-1		

KEPCO INC.
FLUSHING, N.Y.

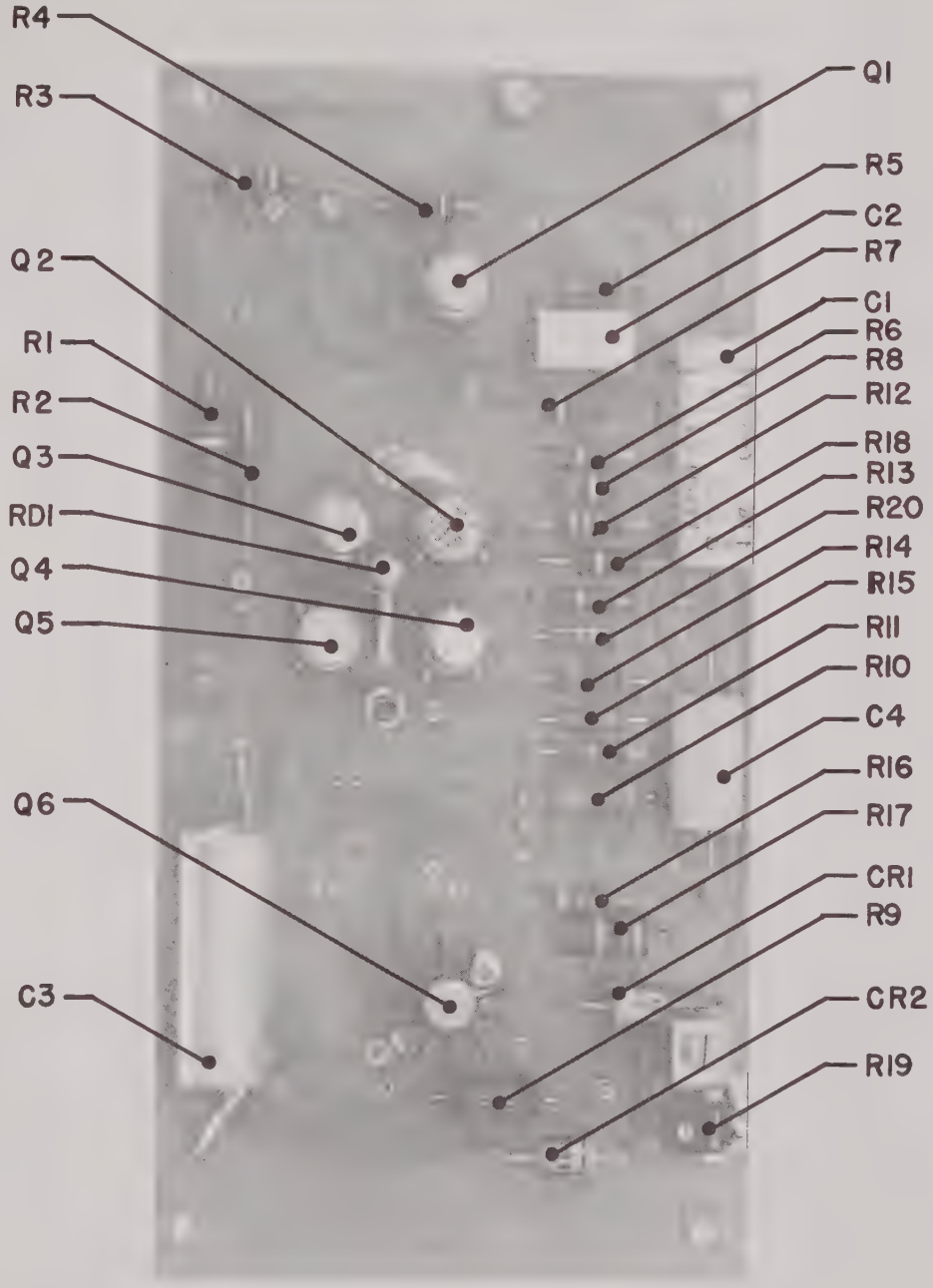
DWG. NO AM01279





CORRECTIONS. IF ANY, APPEAR ON SHEET ATTACHED TO REAR COVER

KEPCO INC.	
FLUSHING NEW YORK	
ITEM RB-2	DES. 1-3-61
	APPD
MODEL SM—— SERIES	DFTM M.CEA
DWG. No. BM00923	CHKD



DRAWN	CHECKED	APPROVED	DATE
BP	KEC		9-1-64
MODEL NO. SM SERIES	PART NO.		SCALE NONE

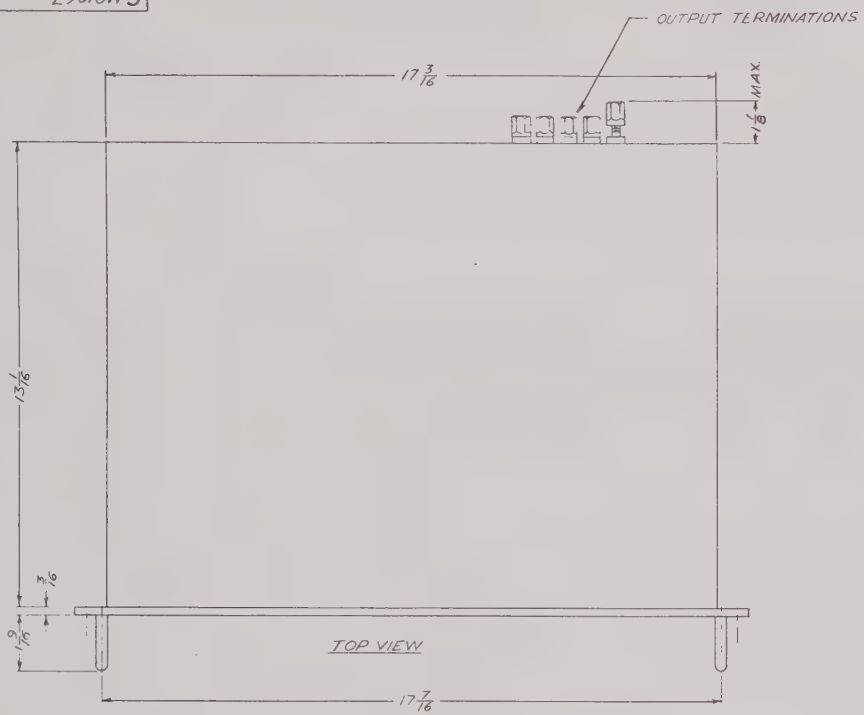
KEPCO INC.
FLUSHING, N.Y.

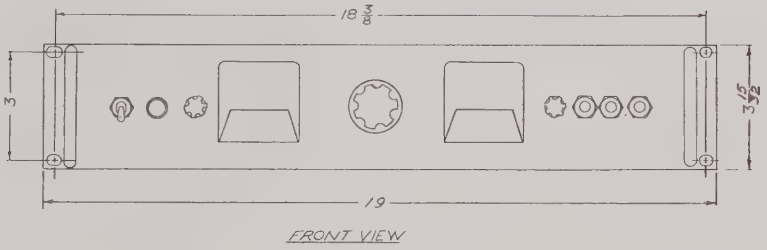
TITLE
PCB-1 COMPONENT LOCATION

DWG. NO. AM04602

CM01267

REVISIONS	DRAWN	CHKD.	APPD.	DATE





NOTES:
USED ON MODELS
SM-14-7
SM-36-5
SM-75-2
SM-160-1
SM-325-0.5

KEPCO INC.
FLUSHING, N.Y.

TITLE: OUTLINE DRAWING

DRAWN	CHECKED	APPROVED	DATE
R.A	TEZ	G. Bykirk	4-19-61

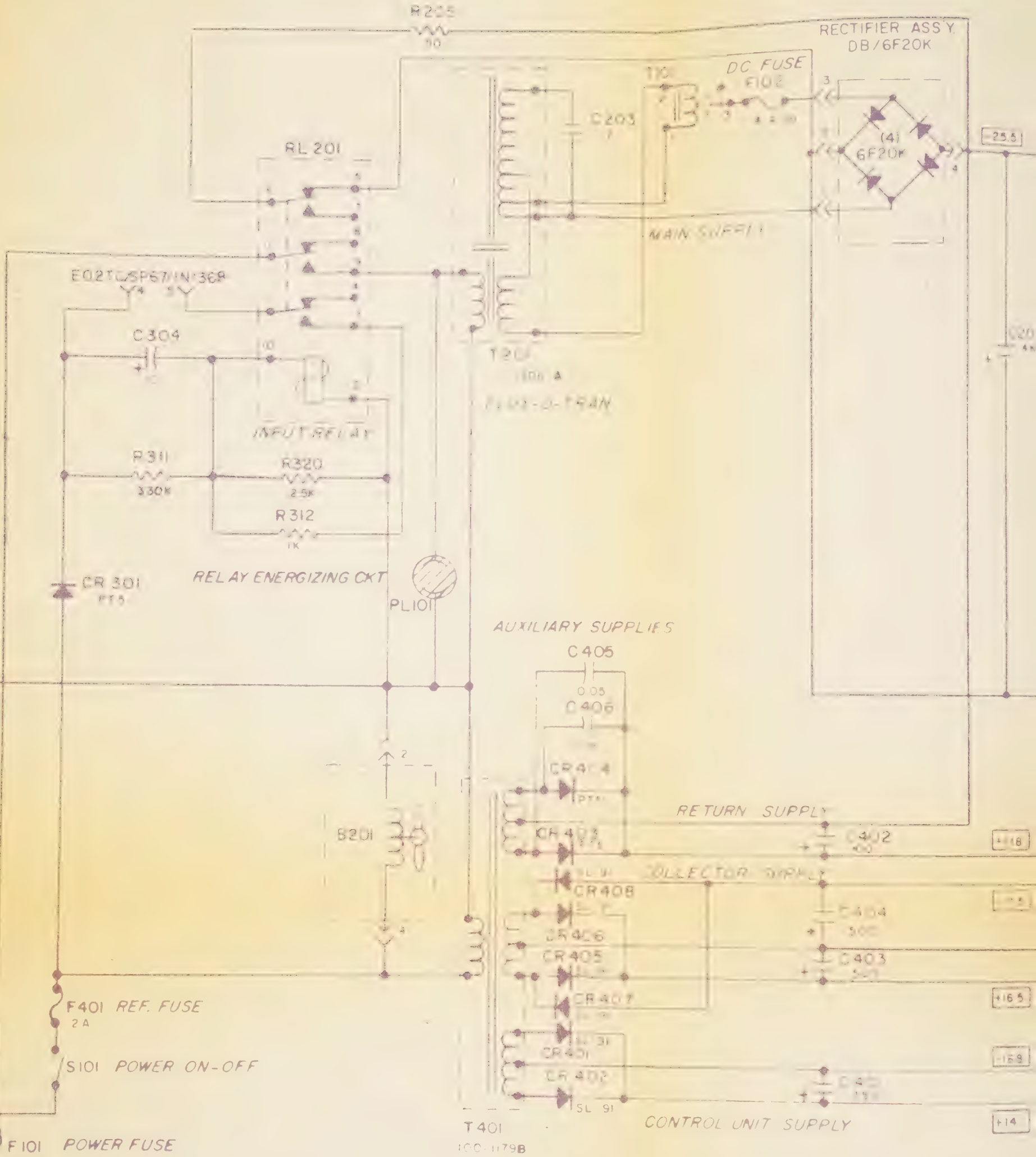
MODEL NO. 3 1/2 SM SERIES | PART NO. | SCALE HALF

DWG. NO. CM01267

TOLERANCE UNLESS OTHERWISE SPECIFIED: FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± 1/2°

INPUT CONTROL

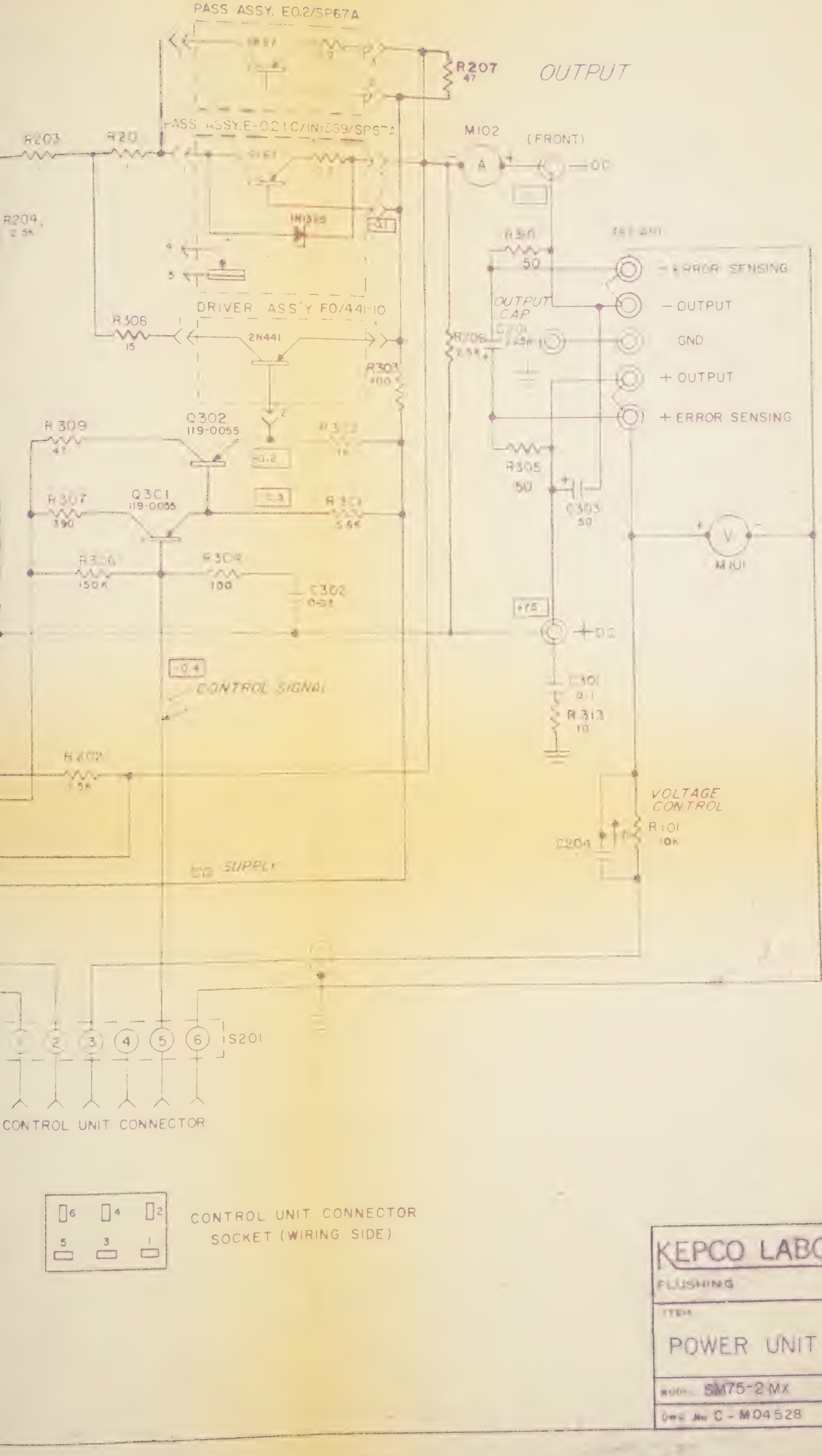
DC SOURCES



NOTE:

1. T101 GANGED TO R101
2. ALL CAPACITOR VALUES ARE GIVEN IN MICROFARADS, RESISTOR VALUES IN OHMS, K=1000.
3. ALL VOLTAGE READINGS TAKEN WITH 20,000 Ω/VOLT METER, WITH REFERENCE TO MINUS OUTPUT TERMINALS, UNDER THE FOLLOWING CONDITIONS:
   A. LINE = 115 V.A.C.
   B. D.C. OUTPUT = 75 VOLTS
   C. OUTPUT CURRENT = ZERO.
4. VOLTAGES ARE TYPICAL AND ARE SUBJECT TO NORMAL COMPONENT TOLERANCE
5. METERS M101, M102 APPLY ONLY TO SM-75 -2 M AND SM-75 -2 MX MODELS.
6. ORDER REPLACEMENT PARTS BY KEPCO PART NUMBER PROVIDED IN PARTS LIST SECTION

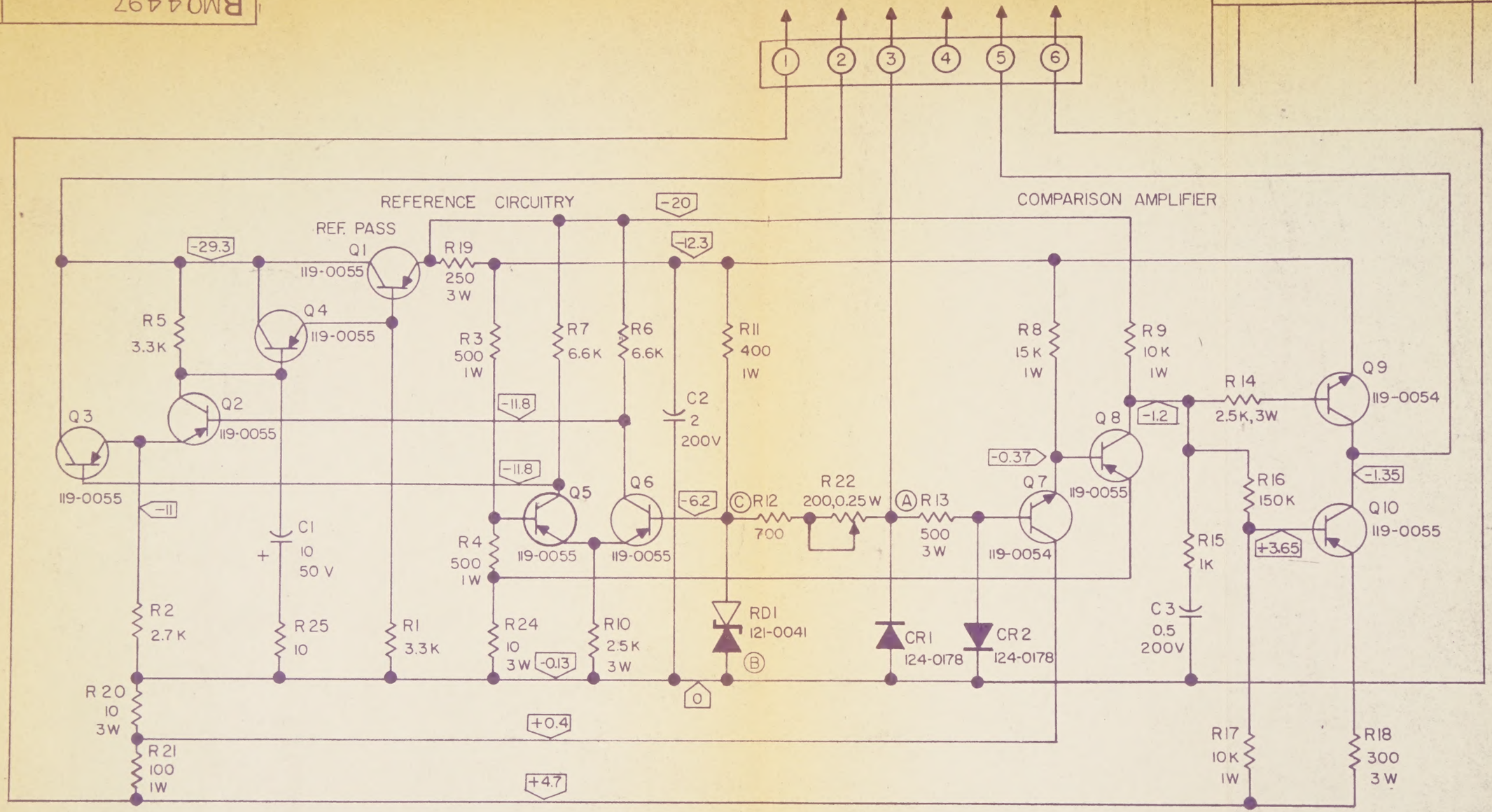
PASS CIRCUITRY



KEPCO LABORATORIES	
FLUSHING NEW YORK	
ITEM: POWER UNIT	DES.
	APPD.
MODEL SM75-2MX	DRWN B.K.G.
DWG No C-M04528	CHKD

BM04497

REVISIONS	DRAWN	CHKD.	APPD.	DATE



NOTE:

1. ALL VOLTAGES TAKEN UNDER CONDITIONS SPECIFIED ON MAIN SCHEMATIC
2. ORDER REPLACEMENT PARTS BY KEPCO PART NUMBER PROVIDED IN PARTS LIST SECTION.

TOLERANCE UNLESS OTHERWISE SPECIFIED: FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± 1/2°

KEPCO INC.
FLUSHING, N.Y.

TITLE: CONTROL UNIT			
DRAWN: L. REY	CHECKED	APPROVED	DATE: 10-7-64
MODEL NO.: SM 75-2 MX		PART NO.	SCALE: NONE
DWG. NO. BM04497			

DEFIANCE NO. 1000H 36880

131-38 SANFORD AVENUE • FLUSHING, N.Y. 11352 • Phone (212) IN 1-7000
TWX# 212-539-6623 • Cable Address: KEPCOPOWER NEWYORK

146-0045 2/65